

## Project 2's Collection of Features

### Team 4's Evaluation

This document is to serve as our representation of both our story board planning and the collection of features we planned on implementing. For our team's collection of features, we decided to create an audio system within the game to play at key game-play moments (such as when ships are hit, sunk, game start and game end). As required, we also developed varied levels of AI (easy, medium, hard) and corrections to the previous team's project.

### **Sound Effects and Scoreboard Collection of Features:**

- Game Setup
  - At the start of the game, an intro sound is played.
  - After each ship is placed, a ship horn sound played.
- In-Game
  - The scoreboard is shown with the player's board.
  - Each hit adds a point to the player's score and each ship sunk adds points to their score corresponding to the size of the ship.
  - After a hit, a sound of an explosion is played.
  - After a miss, a sound of a splash in water is played.
- Game End
  - When the game is over, a victory sound is played.
  - The final Scoreboard is displayed.

---

With regards to story point distribution/references (below), we estimated that the time to complete each assignment/story-point averaged around 30 minutes. To make sure this was accurate, we extrapolated this to the larger story points (such as 8 and 13), comparing them to our references and assignment distribution. An example of this is with the Browser lab in 268, or the logic and UI development our team experienced from Project 1, where we found that it came out to ~6.5 hours. While this isn't guaranteed to be accurate for every part of our 'Assignment Distribution', we feel like it represents a metaphorical 'line-of best fit' for this Project.

### **Quick Note**

*We originally created our collection of features and story-board planning on a Google Sheet. Upon exporting to the repository, we found that it simply looked 'too messy' and created this document to make it have a nicer appearance. If the timestamps are questionable, then I can provide access to the Google Sheet in order to view the timestamps or any edits.*

| Story Point(s)    | Reference                        | Assignment Distribution       |
|-------------------|----------------------------------|-------------------------------|
| 1                 | Hello World (168 Lab)            | Fork Repo                     |
| 1                 | Create an Array (168 Lab)        | Time Schedule                 |
| 1                 | FizzBuzz (368 Assignment)        | Peer Evaluation               |
| 2                 | Loops (168 Lab)                  | Demo Functionality            |
| 2                 | Node (168 Lab)                   | Identify Design Paradigm      |
| 2                 | Fibinotichi (268 Lab)            | Commenting                    |
| 3                 | Haskell Function Definitions     | Time Constraints/Schedule     |
| 3                 | Interactable HTML Page (368 Lab) | Hard AI                       |
| 3                 | Heirarchy (268 Lab)              | Easy AI                       |
| 3                 |                                  | Scoreboard                    |
| 5                 | Board Game (268 Lab)             | Documentation                 |
| 5                 | Memory Lab (268 Lab)             | AI Ship Selection             |
| 5                 | Linked List (268 Lab)            | Audio                         |
| 8                 | Sorting Algorithms (268/649)     | Integrating Game Board        |
| 8                 | Binary Search Tree (268 Lab)     | Estimating Hours/Story Points |
| 8                 | Maze (268 Lab)                   | Makefile                      |
| 13                | UI Development (Project 1)       | Functional Logic Code         |
| 13                | Browser (268 Lab)                | Debugging/Corrections (C++)   |
| 13                | Logic Development (Project 1)    | Medium Diff. AI               |
| <b>Total = 96</b> | <b>Each point is 0.5 hour</b>    | <b>Total Hours = 48 hours</b> |